



King County

Department of
Natural Resources and Parks

King County Department of Natural Resources and Parks (DNRP) Beyond Carbon Neutral Initiative



Solid Waste Advisory Committee (SWAC)

January 15th, 2016

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DNRP Beyond Carbon Neutral Briefing:

Part I: Intro and how the Solid Waste Division (SWD) fits in

Part II: *Beyond Carbon Neutral* initiative focus areas

Part III: DNRP and SWD greenhouse gas (GHG) emissions

Part IV: “Accelerator Strategies”, with details on the Carbon and Energy Investment Pilot Program

2015 King County Strategic Climate Action Plan (SCAP)

PART I: INTRO

Section One: Reducing GHG Emissions

- **Goal Area 1:** Transportation & Land Use
- **Goal Area 2:** Buildings & Facilities Energy
- **Goal Area 3:** Green Building
- **Goal Area 4:** Consumption & Materials Management
- **Goal Area 5:** Forests and Agriculture

Section Two: Preparing for Climate Impacts

- Program-specific impacts, ongoing responses, priority actions and long term direction for twelve focus areas



2015 King County Strategic Climate Action Plan (SCAP)

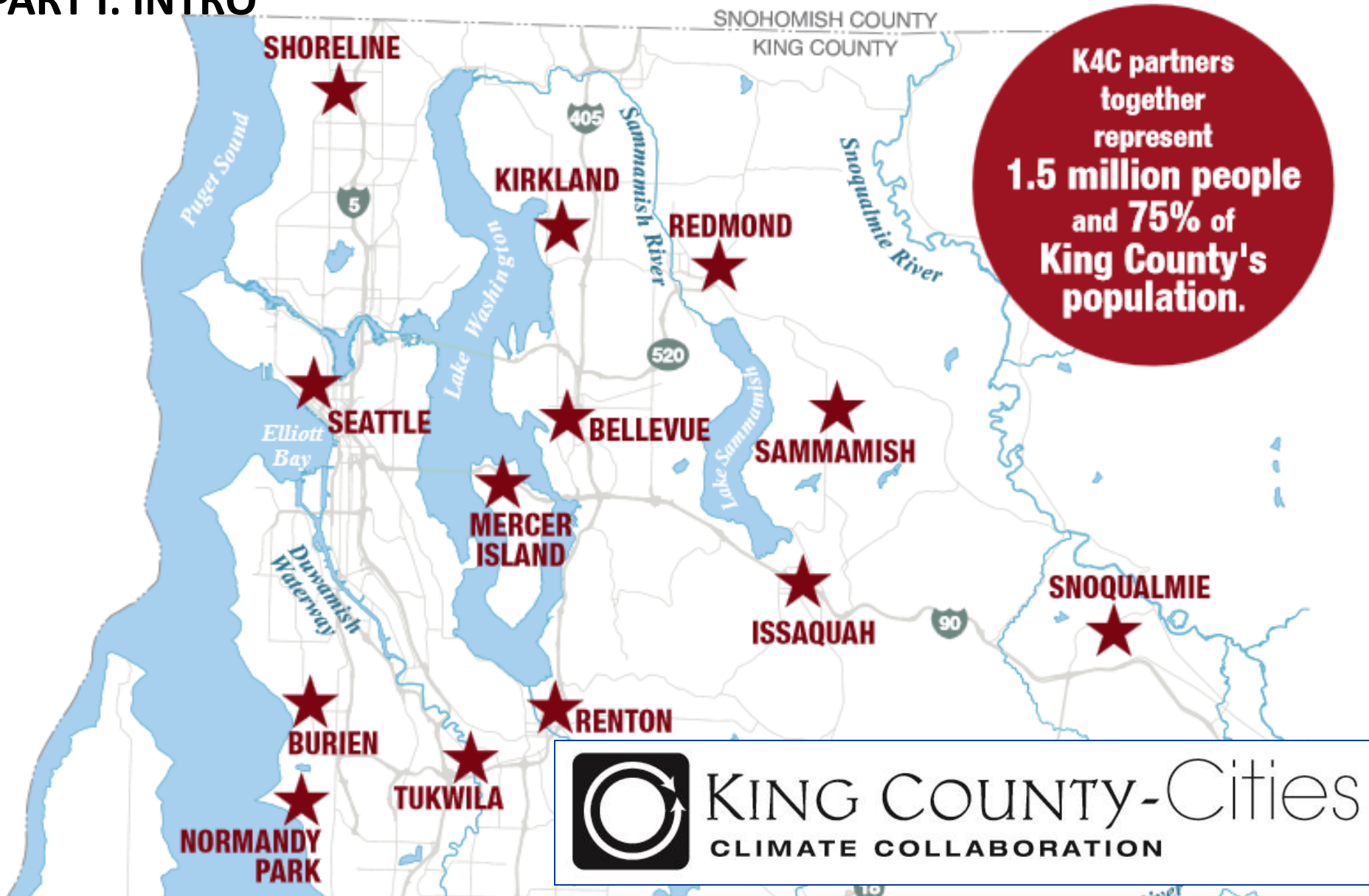
PART I: INTRO



- **5-year blueprint** for County action to confront climate change, including big picture targets:
 - Reduce countywide GHG emissions by at least 80% by 2050
 - DNRP Carbon Neutral by 2017
 - SWD and Wastewater Treatment Division independently carbon neutral by 2025
- **Goal Area 5: Consumption and Materials Management**
 - 70% Recycling target
 - Further reduce fugitive methane from Cedar Hills Regional Landfill and closed landfills

K4C and King County's SCAP

PART I: INTRO



K4C and King County's SCAP

K4C Joint County-City Climate Commitments

Elected Officials of King County and King County Cities



Dow Constantine
King County Executive



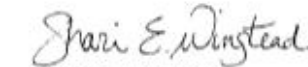
Larry Phillips
King County Council Chair



Bruce Bassett
Mayor, City of Mercer Island



Matthew Larson
Mayor, City of Snoqualmie



Shari E. Winstead
Mayor, City of Shoreline



Jim Haggerton
Mayor, City of Tukwila



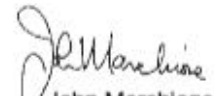
Edward B. Murray
Mayor, City of Seattle



Denis Law
Mayor, City of Renton



Amy Walen
Mayor, City of Kirkland



John Marchione
Mayor, City of Redmond



Fred Butler
Mayor, City of Issaquah



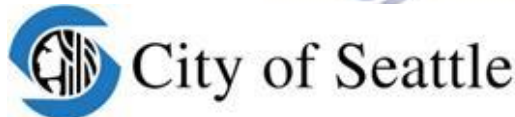
Claudia Balducci,
Mayor, City of Bellevue



Tom Vance
Mayor, City of Sammamish



CITY OF
MERCER ISLAND



CITY OF
ISSAQUAH
WASHINGTON

PART I: INTRO



What is carbon neutral?

no net GHG emissions; no impact on climate change

Who is doing it?

communities, governments, businesses

*180 out of 188 B.C. local
governments plus the Province*



Seattle's community level commitment



PART II: Beyond Carbon Neutral Focus Areas

DNRP's Beyond Carbon Neutral Initiative

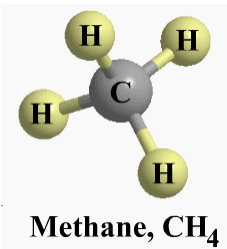
1 - Telling the Climate Change Story: engage employees and partners to tell the story of DNRP's climate solutions

2 – GHG Accounting: refine accounting for DNRP emissions sources and offsets

3- Target Setting: develop “next step” DNRP GHG targets that are *Beyond Carbon Neutral*

4- Accelerator Strategies: what can DNRP do now to accelerate progress?

PART III: DNRP Greenhouse Gas Emissions



PART III: SWD Greenhouse Gas Emissions – INITIAL ESTIMATES

Greenhouse Gas Emissions SOURCES and OFFSETS proposed to be included	Annual Quantity (MTCO2e)
FUGITIVE METHANE EMISSIONS: Cedar Hills Regional Landfill	37,000
FUGITIVE EMISSIONS: King County owned closed landfills	4,000
ENERGY related (buildings, facilities)	2,000
TRANSPORTATION (trucks, vehicles, equipment)	9,000
PURCHASING, e.g. associated with construction contracts, supplies, other purchased goods and services.	TBD ??
Subtotal:	52,000+
Transfer Station Recycling	-14,000
SWD Tree Planting	- ??
Subtotal:	-14,000



Greenhouse Gas Emissions SOURCES proposed to be excluded	Annual Quantity (MTCO2e)
BIOGENIC EMISSIONS: flared CO2 emissions at landfills	~20,000
RENEWABLE ENERGY (credits sold):	-82,000
RECYCLING AND COMPOSTING - in all of King County (except Seattle and Milton)	- 1,500,000 <i>compared to no recycling</i>
MUNICIPAL SOLID WASTE - carbon sequestration	-170,000



Part IV: “Accelerator Strategies”



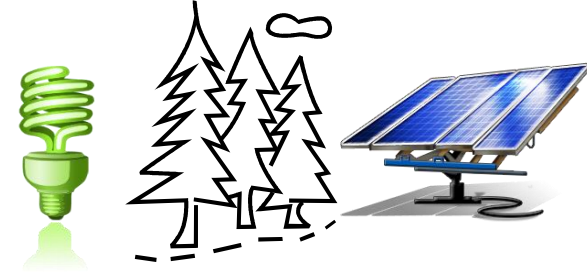
#1 – Carbon and Energy Project Opportunity Libraries

Divisions developed databases of projects and programs that they could implement to help achieve the *Beyond Carbon Neutral* commitment.

Types of projects included:

- Changing equipment or operating strategies to reduce energy use,
- Phasing in cleaner vehicles and fuels,
- Implementing fugitive methane capture projects at landfills or wastewater facilities, or
- Completing soil or forest restoration projects.

Part IV: “Accelerator Strategies”



#2 – Carbon and Energy Investment Program

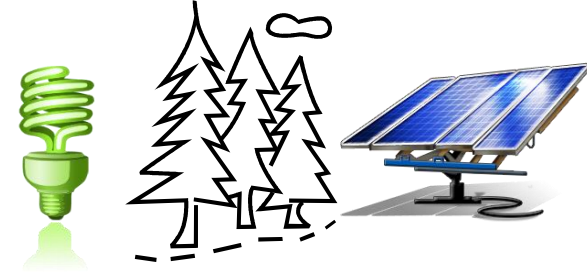
DNRP-wide set aside based on energy expenditures

- “changes the math” on how energy investments are assessed
- creates funding to support projects that reduce GHG emissions, energy usage, and operating costs

Initial rate of \$0.58 per MMTBTU of direct energy usage

- Funding: ~\$560,000 total for DNRP for year one
 - Parks: \$28,000; **SWD: \$83,000**; WLRD: \$12,000; WTD: \$438,000

Part IV: “Accelerator Strategies”



#2 – Carbon and Energy Investment Program

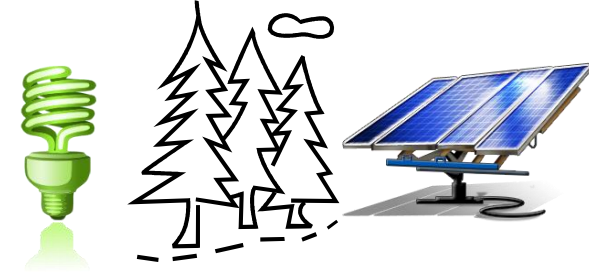
What will the funding support? Divisions have discretion to select projects; priorities include selections that:

- Result in the largest GHG emissions reductions/offsets and/or energy reductions
- Support projects or programs that would not occur without this funding
- Cover the incremental costs of resource conservation components of projects, not necessarily 100 percent of costs

Other criteria encouraged in project selection :

- Have employee engagement value
- Result in cost savings

Part IV: “Accelerator Strategies”



#2 – Carbon and Energy Investment Pilot Program

Recent Project Funding Highlights

- **Parks Division: Cottage Lake**
 - Cottage Lake: Pool Cover
- **Water and Land Resource Division:**
 - Cedar River and Bass Lake Natural Areas: Tree Planting
- **Wastewater Treatment Division: West Point Plant**
 - Insulation, Monitoring System, Pumping Optimization
- **Solid Waste Division**
 - **Cedar Hills Regional Landfill:** Phase I and Phase II Lighting Retrofits; “Dual Fuel” diesel/CNG truck (future)
 - **Shoreline and Enumclaw Transfer Stations:** Lighting Retrofits





#3 – Carbon and Energy in the Budget Process

As part of the of the 2015-2016 budget process, DNRP divisions documented:

- The investments they will pursue to help King County achieve its GHG emissions reduction and energy targets
- The initiatives the agency is implementing to minimize the operational environmental footprint of day-to-day operations
- The GHG emissions reduction or resource conservation projects or actions that have been considered, but are not being included in the 2015/2016 budget due to lack of budget and/or staff resources.



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